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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|------------------|
| 10/500,811   | 07/07/2004  | George A. Doherty    | 21020P                          | 8668             |
| 210 7590 02/12/2007<br>MERCK AND CO., INC<br>P O BOX 2000<br>RAHWAY, NJ 07065-0907 |             |                      | EXAMINER<br>ANDERSON, REBECCA L |                  |
|  |             |                      | ART UNIT                        | PAPER NUMBER     |
|  |             |                      | 1626                            |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE                   |                  |
| 31 DAYS  |             | 02/12/2007           | PAPER                           |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/500,811

Applicant(s)

DOHERTY ET AL.

Examiner

Rebecca L. Anderson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22, 34 and 35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22, 34 and 35 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

Claims 1-22, 34 and 35 are currently pending in the instant application and are subject to a lack of unity requirement.

#### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Due to the numerous and widely divergent subject matter claimed, a precise listing of inventive groups cannot be made. The following groups are exemplary:

**Group I**, claims 1-5, 7, 11-14, 16, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is not present.

**Group II**, claims 1-5, 7, 11-14, 16, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is not present.

**Group III**, claims 1-5, 7, 11, 12, 15, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is phenyl.

**Group IV**, claims 1-5, 7, 11, 12, 15, 17, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is phenyl.

**Group V**, claims 1-5, 7, 11, 12, 18, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is thienyl.

**Group VI**, claims 1-5, 7, 11, 12, 18, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is thienyl.

**Group VII**, claims 1-5, 7, 11, 12, 19, 20, 21 and 35 wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is furanyl.

**Group VIII**, claims 1-5, 7, 11, 12, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is furanyl.

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**Group IX**, claims 1-5, 7, 11, 12, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is 1,3-thiazolyl.

**Group X**, claims 1-5, 7, 11, 12, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is HET wherein HET is 1,3-thiazolyl.

**Group XI**, claims 1-5, 7, 11, 12, 15, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $-\text{CO}_2\text{H}$ ; and C is selected from the group consisting of (1).

**Group XII**, claims 1-5, 7, 11, 12, 15, 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is  $-\text{CO}_2\text{H}$ ; and C is selected from the group consisting of (1).

**Group XIII**, claims 1-5, 10-14, 16, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is 1H-tetrazol-5-yl; and C is not present.

**Group XIV**, claims 1-5, 10-14, 16, , 21 and 35 drawn to products of the formula I wherein Ar is naphthyl; A is 1H-tetrazol-5-yl; and C is not present.

**Group XV**, ; claims 1-5, 10-12, 15, 17, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is 1H-tetrazol-5-yl; and C is phenyl.

**Group XVI**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is naphthyl; A is 1H-tetrazol-5-yl; and C is phenyl.

**Group XVII**, claims 1-6, 8, 9, 11, 12, 17, 18, 19, 20, 21 and 35 drawn to products of the formula I wherein Ar is phenyl; A is  $\text{PO}_3\text{H}_2$ ,  $-\text{PO}_2\text{H}_2$  or  $-\text{PO}(\text{R}_5)\text{OH}$ ; and C is HET wherein HET is thienyl.

**Group XVIII**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is naphthyl; A is  $\text{PO}_3\text{H}_2$ ,  $-\text{PO}_2\text{H}_2$  or  $-\text{PO}(\text{R}_5)\text{OH}$ ; and C is HET wherein HET is thienyl.

**Group XIX**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is phenyl; A is  $\text{PO}_3\text{H}_2$ ,  $-\text{PO}_2\text{H}_2$  or  $-\text{PO}(\text{R}_5)\text{OH}$ ; and C is HET wherein HET is furanyl.

**Group XX**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is naphthyl; A is  $\text{PO}_3\text{H}_2$ ,  $-\text{PO}_2\text{H}_2$  or  $-\text{PO}(\text{R}_5)\text{OH}$ ; and C is HET wherein HET is furanyl.

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**Group XXI**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is phenyl; A is SO<sub>3</sub>H; and C is HET wherein HET is 1,3-thiazolyl.

**Group XXII**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is naphthyl; A is SO<sub>3</sub>H; and C is HET wherein HET is 1,3-thiazolyl.

**Group XXIII**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is phenyl; A is SO<sub>3</sub>H; and C is selected from the group consisting of (1).

**Group XXIV**, claims 22 and 34 drawn to methods of use of the products of the formula I wherein Ar is naphthyl; A is SO<sub>3</sub>H; and C is selected from the group consisting of (1).

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Again, this list is not exhaustive as it would be impossible under the time constraints due to the sheer volume of subject matter instantly claimed. Therefore, applicant may choose to elect a single invention (a product or a method of use) by identifying another specific embodiment of similar scope to the exemplary groups which is not listed in the exemplary groups of the invention and examiner will endeavor to group the same. The applicant may also choose to elect a single disclosed species or a single disclosed species for a single method of use and the examiner will endeavor to create a group comprising the elected species of similar scope to the exemplary groups.

The claims herein lack unity of invention under PCT rule 13.1 and 13.2 since, under 37 CFR 1.475(a)

Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical

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features...those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

Groups I-XXIV lack unity of invention since under 37 CFR 1.475: the technical feature corresponding to the claims is C-N-C. This technical feature is not a special technical feature because it fails to define a contribution over the prior art as can be seen, for example, by US Patent No. 4,774,251, which discloses compounds of the formula I, column 1 which have the group C-N-C. Therefore claims 1-22, 34 and 35 are not so linked as to form a single general inventive concept and there is a lack of unity of invention because they lack a special technical feature as the technical feature present fails to define a contribution over the prior art. The variables found on the C-N-C group vary extensively and when taken as a whole result in vastly different compounds. Accordingly, unity of invention is considered to be lacking and restriction of the invention in accordance with the rules of unity of invention is considered to be proper. Additionally, the vastness of the claimed subject matter, and the complications in understanding the claimed subject matter imposes a serious burden on any examination of the claimed subject matter.

Therefore, since the claims do not relate to a single general inventive concept under PCT Rule 13.1 and lack the same or corresponding special technical feature, the claims lack unity of invention and should be limited to only a product or a method of use.

Furthermore, in regards to groups I-XXIV even if unity of invention under 37 CFR 1.475(a) is not considered lacking, which it is, under 37 CFR 1.475(b) a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations:

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- (1) A product and a process specially adapted for the manufacture of said product; or
- (2) A product and a process of use of said product; or
- (3) A product, a process specially adapted for the manufacture of the said product, and a use of the said product; or
- (4) A process and an apparatus or means specifically designed for carrying out the said process; or
- (5) A product, a process specially adapted for the manufacture of the said product, and an apparatus or means specifically designed for carrying out the said process.

And, according to 37 CFR 1.475(c)

if an application contains claims to more or less than one of the combinations of categories of invention set forth in paragraph (b), unity of invention might not be present.

Therefore, since the claims are drawn to more than a product and a method of use, and according to 37 CFR 1.475 (e)

the determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim.

The claims, therefore, lack unity of invention.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rebecca L. Anderson whose telephone number is (571) 272-0696. Mrs. Anderson can normally be reached Monday through Friday 5:30AM to 2:00PM.

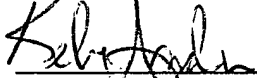
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



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February 5, 2007